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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,359	12/04/2003	Steven S. Bordewick	AP.002US1	8234
46350	7590	08/24/2005		
KATHLEEN R. TERRY 2417 COMO AVENUE ST. PAUL, MN 55108			EXAMINER PATEL, MITAL B	
			ART UNIT 3743	PAPER NUMBER
DATE MAILED: 08/24/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

SEP 02 2005

Notice of Non-Compliant Amendment (37 CFR 1.121)

Application No.

10/729,359

Examiner

Mital B. Patel

Applicant(s)

BORDEWICK, STEVEN S.

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on 03 June 2005 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
 - ☐ A. Amended paragraph(s) do not include markings.
 - ☐ B. New paragraph(s) should not be underlined.
 - ☐ C. Other _____.
- ☐ 2. Abstract:
 - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
 - ☐ B. Other _____.
- ☐ 3. Amendments to the drawings:
 - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
 - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
 - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
 - ☐ A. A complete listing of all of the claims is not present.
 - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
 - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
 - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
 - ☒ E. Other: The Amendment is unsigned.

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714 and the USPTO website at <http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/officeflyer.pdf>.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted within the time period set forth in the final Office action.
2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

Failure to timely respond to this notice will result in:

Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Mital B. Patel 8/12/05

O I P E



Appl. No. 10/729,359
Applicant Steven S. Bordewich
Filed 12/04/2003
Art Unit 3743
Examiner Mital B. Patel

**AMENDED PER NOTICE OF
NON-COMPLIANT AMENDMENT
MAILED 05/23/2005**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE

Dear Sir:

Please accept this Amendment, which is identical to that sent on 11 May 2005 except that the status of all the claims is now set forth on page 3.

In response to the Office action of January 12, 2005, please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks begin on page 5 of this paper.



Appl. No. 10/729,359
Amendment dated May 11, 2005
Further amended June 1, 2005
Response to Office Action of January 12, 2005

Amendments to the Specification:

Please replace the paragraph on page 6, lines 12-22 with the following:

The blower assembly will be supplied to a patient fully assembled and preset to an average outlet pressure. In use, a patient dons a face mask, most preferably supported by the mask support described in co-pending United States Provisional Patent Application 60/404,685, now US Patent Number 6,854,465, issued February 15, 2005, attaches the hose from the blower assembly to the mask and goes to sleep. The preset outlet pressure is initially at a low value, from about four to six cm water and increases over time to about 10 to 20 cm water. The time of increase may be from ten minutes to half an hour or so, depending on the patient's preference and the time required to fall asleep. The increase may be set to be stepwise, continually variable or hyperbolically variable. The actual values will vary and be adjusted to be the minimum necessary to keep the airways patent for each CPAP user. In one embodiment of the invention, once the maximum pressure is reached, the pressure is held constant by varying the fan speed

Appl. No. 10/729,359

Amendment dated May 11, 2005

Further amended June 1, 2005

Response to Office Action of January 12, 2005

Amendments to the Claims:

The claims currently pending and as amended follow;

1. (Currently amended) A blower assembly for providing continuous positive airway pressure to a patient comprising
an inlet muffler box which receives a turbulent stream of air which is directed along an air pathway comprising a first perforated tube, whereby the stream of air exits the tube through the perforations thereof and is directed around a first divider and a second divider and a third divider, lengthening the air pathway, whereby the stream of air and is thereby transformed into an approximately laminar stream of air;
a blower box comprising a centrifugal fan; and
an outlet muffler box comprising a perforated tube for receiving the stream of air through the perforations thereof, the stream of air having passed the third divider and;
connected to a hose leading to the patient.
2. (Currently amended) The blower assembly of claim 1 wherein the ~~interior surfaces~~ walls and baffles are coated with an anechoic material.
3. (Original) The blower assembly of claim 1 wherein the air pathway is reduced in cross sectional area from that of the hose leading to the patient.
4. (Original) The blower assembly of claim 3 wherein the cross sectional area of the air pathway is 20% to 50% smaller than that of the hose leading to the patient.
5. (Original) The blower assembly of claim 3 wherein the cross sectional area of the air pathway is 25% to 35% smaller than that of the hose leading to the patient.
6. (Currently amended) ~~An~~ The inlet muffler box ~~of claim 1~~ which comprises
a first perforated tube having a sealed end distal to an inlet orifice which receives a turbulent stream of air through the orifice;
a first divider placed along the length of the first perforated tube so as to direct the stream of air around the first divider thereby lengthening the air pathway;
a second divider placed on the opposite wall from the inlet orifice;
a second perforated tube having a sealed end distal to an orifice; and
a third divider along the length of the second perforated tube so as to direct the stream of air around the third divider, and
an orifice opening to the blower box.

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Further amended June 1, 2005

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7. (Original) The inlet muffler box of claim 6 wherein the perforated tubes are of approximately equal length and each of the dividers is about 60% of the length of the perforated tubes.

8. (Currently amended) A blower assembly for providing continuous positive airway pressure to a patient comprising:

an inlet muffler box which receives a turbulent stream of air which is directed into a first perforated tube with a sealed end, whereby the air enters the muffler box through the perforations in the first tube, is directed along an air pathway by a first divider placed along the tube, is diverted by a second divider placed on the wall of the box opposite to the first perforated tube, is further diverted by a third divider placed along a second perforated tube with a sealed end, ~~whereby~~ thereby transforming the turbulent stream of air into a laminar flowing stream of air which then passes through the perforations in the second tube into a blower box; and a blower box comprising a centrifugal fan and an outlet muffler box connected to a hose leading to the patient.

9. (Canceled) The blower assembly of claim 1 or 8 wherein the outlet muffler box comprises the inlet muffler box of claim 6.



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Further amended June 1, 2005
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REMARKS

Claim 1 has been amended to more clearly define the invention. The added element “comprising a first perforated tube, whereby the stream of air exits the tube through the perforations thereof and is directed around a first divider and a second divider and a third divider, lengthening the air pathway, whereby the stream of air” is supported by claim 6 as filed and on page 3, lines 6 and 20-24 of the Specification. The added elements “so as to direct the stream of air around the first divider thereby lengthening the air pathway”; and “so as to direct the stream of air around the third divider”, are supported by the Specification on page 3, lines 6, 20-24.

The Examiner has objected to Claim 2, line 1 because “the interior surfaces lack antecedent basis.” Claim 2 has been amended to correct this deficiency. The amendment “walls and baffles” is supported by the specification, page 8, lines 15-16.

The Examiner has rejected claim 9 as under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 9 is canceled.

Claims 1 and 2 are rejected under 35 U.S.C. §102 (b) as being anticipated by Francis (US 4,905,789). Examiner describes Francis as providing an inlet muffler box which receives a turbulent stream of air which is directed along an air pathway and is transformed into an approximately laminar stream of air. Applicant respectfully disagrees about the teachings of Francis. Applicant agrees that, like the present invention, the invention of Francis provides mufflers both at the inlet and outlet of a blower. However, it is unlikely that Francis' assembly produces a laminar stream of air with concomitant reduction in aerodynamic noise. As explained in the specification on page 3, lines 20-24, the transformation to laminar flow of this assembly is not due to the dual mufflers, but rather to passing the airflow through the perforations of the inlet and outlet tubes and to the lengthening of the air pathway. Francis does not teach or suggest this feature. Claim 1 as amended adds these elements and clarifies the distinction between the present invention and that of Francis. The lining of the pathway with anechoic material serves to reduce the mechanical noise from the blower, a feature that Francis does provide. However, the essence of this invention is the simultaneous reduction of both aerodynamic and mechanical noise. Claim 1 being amended and claim 2 depending on claim 1, Applicant proposes that the anticipation rejection is overcome.

Claims 3-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Francis in view of Watanabe et al (US 5,783,780). The Examiner states that Francis teaches all of the

limitations of the invention as claimed and Watanabe adds the element of reduced cross-section. As discussed above, Francis does not teach all of the limitations as claimed in the amended claims 1 and 2, upon which claims 3-5 depend. Particularly, Francis does not teach the

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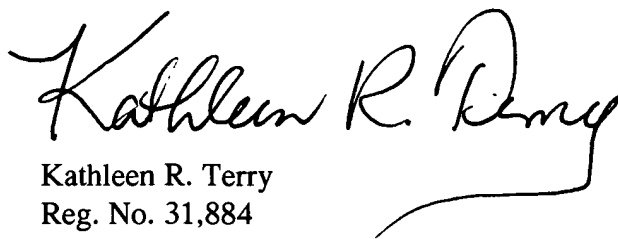
lengthened air pathway of the present invention as now set forth in amended claim 1, which converts the air stream to a laminar flow, thus reducing aerodynamic noise. Lacking this element in either reference, the combination of Francis and Watanabe does not teach or make obvious the invention the invention as currently claimed.

Claims 6-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Francis in view of Steele (US 5,274,201). As discussed above, Francis does not teach essentially all of the limitations of claims as amended, lacking the crucial limitation of a lengthened air pathway of the present invention, which converts the air stream to a laminar flow, thus reducing aerodynamic noise. Steele teaches a muffler for an air blower having a lengthened air pathway to attenuate, abate and reduce the noise level. The Examiner states that Steele does this by providing an array of multiple perforated tubes. Applicant believes that the Examiner has misunderstood Steele. Steele does not have "perforated tubes" as does the present invention, but describes "stiff tubular element made out of an air pervious material such as glass wool" (Steele, column 2, lines 54-58.) Steele's tubular elements are not a major part of the air pathway, which is described in Steele's Claim 3 as a "continuous, hollow tube," but rather are equivalent to the spacers of the present invention, covered with anechoic material. Here, the anechoic tubes are the spacers. As Applicant understands Steele's invention, looking particularly at the air flow arrows of Figures 2 and 4, the air stream flows through the serpentine pathway defined by the air pervious spacers, the air entering and exiting "in a somewhat random fashion" (Steele, column 3, lines 15-16), with the contact of the air stream to the anechoic spacers reducing the aerodynamic noise. Claim 1 of this application as amended now clearly describes the perforated tubes and perforations thereof as a major element of the air pathway "comprising a first perforated tube, whereby the stream of air exits the tube through the perforations thereof" Applicant asserts that claim 6 as amended is not obvious from Francis in view of Steele. Claim 7 is dependant on claim 6 and claim 6 being allowable, is entitled to allowance. Claim 8 describes in detail the air pathway with is the essence of this invention and Francis plus Steele not teaching the perforated tubes and the lengthened pathway, is not obvious from Francis plus Steele.

Claims 1 and 6 being amended and Claim 9 canceled, Applicant believes that the claims are now in order for allowance, which notice is earnestly sought. If the Examiner has any further questions, he is invited to contact Applicants attorney at the below phone number.

Respectfully submitted by Attorney for Applicant,

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